

ABSTRACT

An electrostatic stepping comb drive actuator has a first tooth and a second tooth. Each tooth has a first surface, with the first surface of the first tooth opposite the first surface of the second tooth, first conductors, and a first electrode array located on the first surfaces. The first electrode array includes first electrodes in first electrode groups. The comb drive actuator further includes a second member having a third tooth interdigitated with the first tooth and the second tooth such that relative motion is possible between the third tooth and the first and second teeth. The third tooth includes a second surface disposed opposite each of the first surfaces, second conductors, and a second electrode array located on the second surfaces. The second electrode array includes second electrodes in second electrode groups. The second electrodes in each second electrode group are electrically connected to the same one of the second conductors.